

# इंटरनेट

# मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6013 (1970): Trowels for use in foundries [MTD 14: Foundry]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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Indian Standard

## SPECIFICATION FOR TROWELS FOR USE IN FOUNDRIES

**1. Scope**—Requirements for trowels for use in foundries. Trowels are used for making, finishing and repairing the moulds.

**2. Dimensions**—As specified in Tables 1 to 5.

### 3. Material

**3.1 Blade**—Tool steel T 80, IS: 3749-1966 'Specification for tools and die steels for cold work'.

**3.2 Tang**—High tensile steel St 58—HT IS: 961-1962 'Specification for structural steel (high tensile) (revised)'.

**3.3 Handle**—Phenolic moulding material Grade 2, IS: 1300-1966 'Specification for phenolic moulding materials (second revision)'.

**4. Assembly**—The tang shall be rigidly joined with blade either by welding or rivetting.

### 5. Coating

**5.1 Blades**—Hard chromium as in IS: 1337-1968 'Specification for hard chromium electroplated coatings on iron and steel (first revision)'.

**5.2 Handle**—Lacquer coated.

**6. Hardness**—HRC 50 to 55 on the blade.

### 7. Tolerances

**7.1 Blade**—Grade IT 14, IS: 919-1963 'Recommendations for limits and fits for engineering (revised)'.

**7.2 Tang and Handle**—Grade IT 16, IS: 919-1963.

**8. General**—Heat treated surfaces shall be free from cracks, burrs, scales, rust, etc.

**9. Marking**—The trowels shall be marked with the trade-mark or name of manufacturer and designation of the tool.

**9.1 ISI Certification Marking**—Details available from the Indian Standards Institution, New Delhi I.

**9.2** The package shall be marked with the information given under 9 and 9.1.

**10. Packing**—Wrapped separately in moisture-proof paper. Protective oil shall be applied on tang. Tools of the same type and size shall be placed in cartons containing twelve tools. Cartons may be placed in wooden boxes weighing not more than 50 kg overall.

**11. Supply**—According to IS: 1387-1967 'General requirements for the supply of metallurgical materials (first revision)'.

Foundry Sectional Committee, SMDC 17 [ Ref: Doc: SMDC 17 (1183) ]

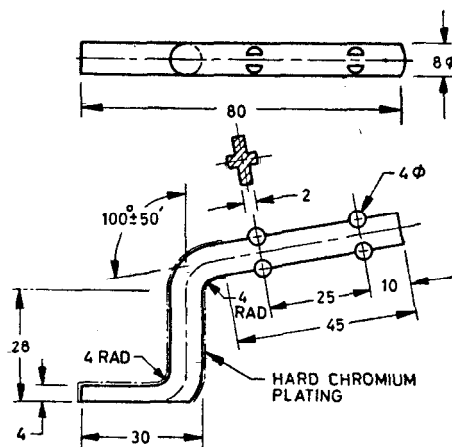
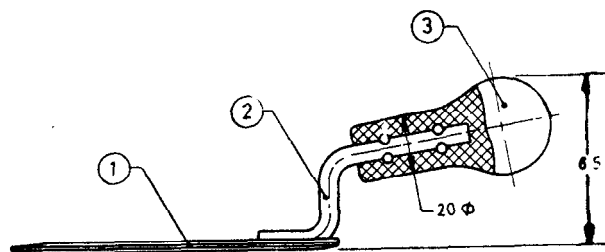
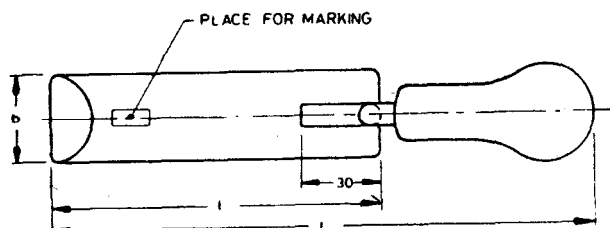
Adopted 30 December 1970

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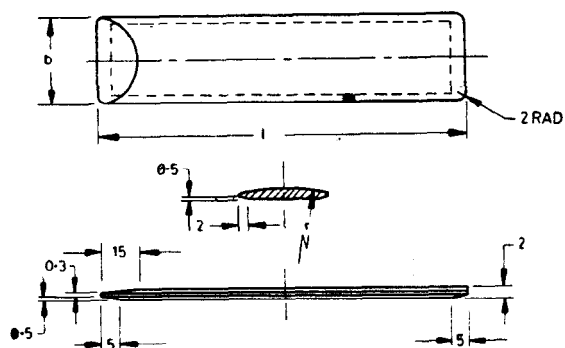
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**TABLE 1. DIMENSIONS OF RECTANGULAR TROWELS, TYPE A**

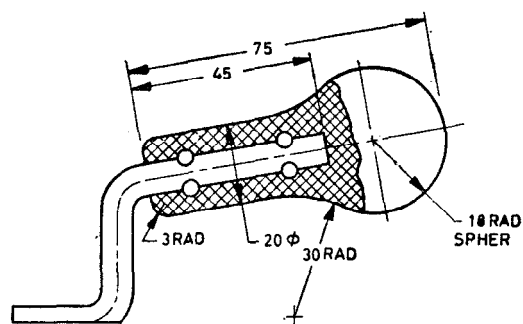
( Clause 2 )



DETAIL 2 TANG



DETAIL 1 BLADE



DETAIL 3 GRIP

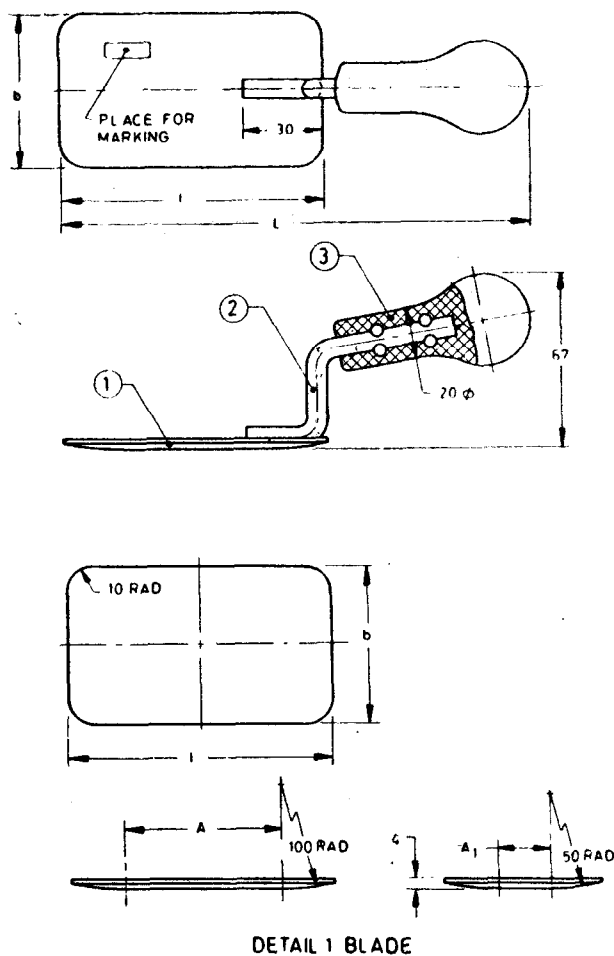
**All dimensions in millimetres.**

$l$	$L$	$b$	$r$
125	205	32	120
160	240	40	160

**Designation**—Rectangular trowels of length 205 mm and blade length 125 mm shall be designated as:

**Trowel A-125 IS : 6013**

**TABLE 2 DIMENSIONS OF TROWELS FOR BIG MOULDS, TYPE B**  
( Clause 2 )



DETAIL 1 BLADE

All dimensions in millimetres.

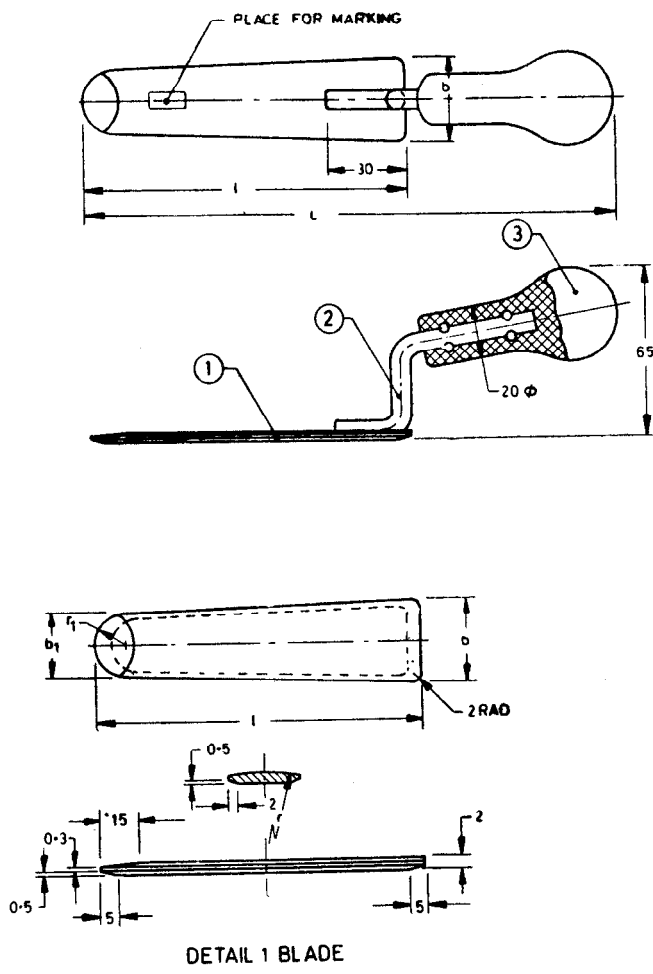
$L$	$l$	$b$	$A$	$A_1$
180	100	60	60	20
240	160	80	110	40

**Designation** — Trowel for big-moulds of length 180 mm and blade length 100 mm shall be designated as:

Trowel B-100 IS : 6013

**Note** — Details 2 and 3 are same as given in Table 1.

TABLE 3 DIMENSIONS OF NARROW TROWELS, TYPE C  
( Clause 2 )



All dimensions in millimetres.

<i>L</i>	<i>l</i>	<i>b</i>	<i>b</i> <sub>1</sub>	<i>r</i>	<i>r</i> <sub>1</sub>
205	125	32	24	120	12
240	160	40	32	160	16

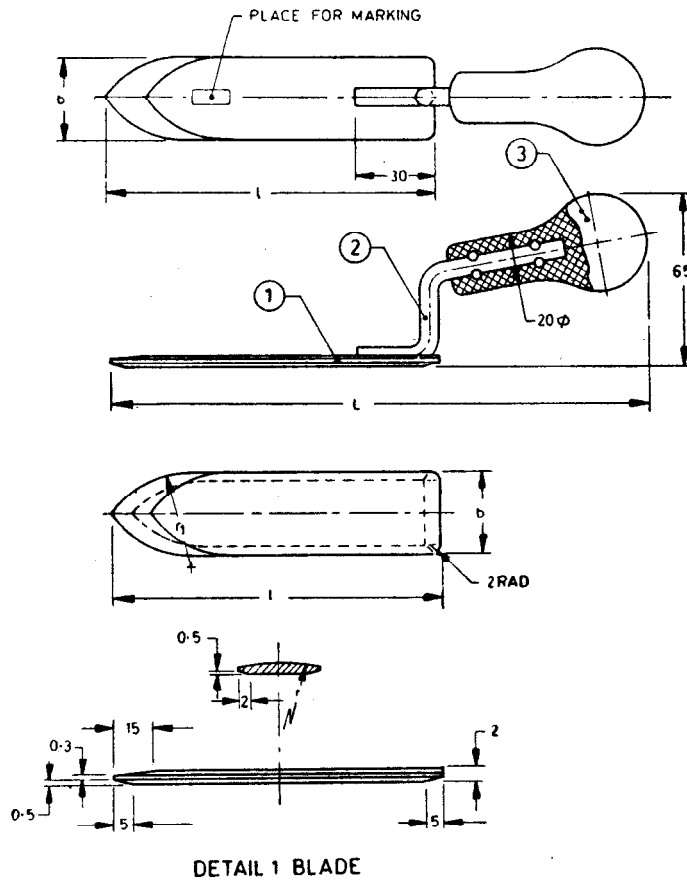
Designation — Narrow trowels of blade length 125 mm shall be designated as:

Trowel C-125 IS : 6013

Note — Details 2 and 3 are same as given in Table 1.

**TABLE 4 DIMENSIONS OF POINTED TROWELS, TYPE D**

( Clause 2 )



All dimensions in millimetres.

$L$	$l$	$b$	$r$	$r_1$
180	125	32	120	36
240	160	40	160	50

Designation — Pointed trowels of blade length 125 mm shall be designated as:

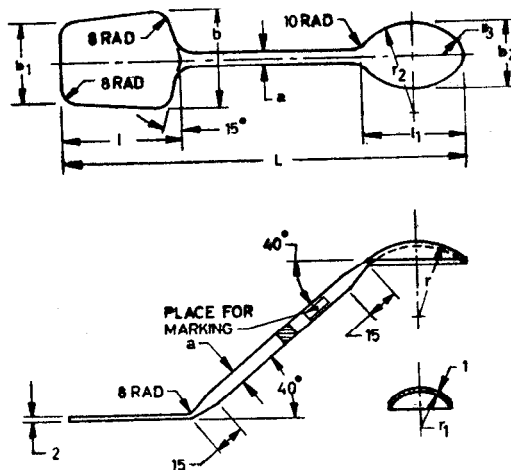
Trowel D-125 IS: 6013

Note — Details 2 and 3 are same as given in Table 1.



TABLE 5 DIMENSIONS OF TROWELS WITH SCOOPS, TYPE E

( Clause 2



All dimensions in millimetres.

$L$	$l$	$l_1$	$b$	$b_1$	$b_2$	$r$	$r_1$	$r_2$	$r_3$	$a$
160	40	36	32	25	20	34	13	23	5	6
200	60	50	50	40	32	38	20	32	10	7

Designation — Trowels with scoop of length 160 mm shall be designated as:

Trowel E-160 IS: 6013